

length sufficient to permit the identification of primers capable of being used to effect the specific amplification of said flanking oligonucleotide and said polymorphism;

(C) using said primers to effect the amplification of said flanking oligonucleotide and said polymorphism of said single nucleotide polymorphism of said target human; and

(D) [interrogating] identifying the single nucleotide present at the single nucleotide polymorphism of said amplified polymorphism by genetic bit analysis, wherein said genetic bit analysis comprises the substeps:

- (a) incubating a sample of nucleic acid containing said single nucleotide polymorphism of said target human in the presence of a nucleic acid primer and from one to four dideoxynucleotide derivatives, under conditions sufficient to permit a polymerase mediated, template-dependent extension of said primer, said extension causing the incorporation of a single dideoxynucleotide derivative to the 3'-terminus of said primer, said incorporated single dideoxynucleotide derivative being complementary to the single nucleotide of the polymorphic site of said polymorphism;
- (b) permitting said template-dependent extension of said primer molecule, and said incorporation of said single dideoxynucleotide derivative; and
- (c) determining the identity of said single nucleotide of said single nucleotide polymorphism by determining the identity of the dideoxynucleotide derivative incorporated into said primer, said identified dideoxynucleotide derivative being complimentary to said single nucleotide of said polymorphism. --

#### REMARKS

##### I. Status

Claims 30-38, and 40-46 are pending. Claims 1-29, and 39 have been canceled.